

Abram Handler

Ph.D. student at University of Massachusetts

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Areas of interest

Natural language processing • Machine learning • Data science • User-facing text analytics

Education

Present Ph.D. candidate in Computer Science, University of Massachusetts, Amherst

SLANG Lab: <http://slanglab.cs.umass.edu/>

Advisor: Brendan O'Connor

2018 M.S. in Computer Science, University of Massachusetts, Amherst, GPA 3.8

2014 M.S. in Computer Science, University of New Orleans, GPA 4.0

Advisor: Vassil Roussev

2007 B.A. in Philosophy, Columbia University, GPA 3.9

Awards & grants

2018 **Best reviewer award** at EMNLP conference (top 7%)

2015 **Knight Foundation prototype grant** to develop the *Rookie* text analytics system

2015 **Excellence in journalism award**, New Orleans press club

2014 **Doctoral scholarship (declined)**, University of New Orleans

2007 **Magna cum laude**, Columbia University

2007-2003 **Dean's list**, Columbia University (five semesters)

2006 **Oxbridge scholars program**, Columbia University - Cambridge University

2003 **John Jay Scholar** recognizing promising incoming freshman, Columbia University

Publications

Query-focused Sentence Compression in Linear Time. **Abram Handler** and Brendan O'Connor. *EMNLP*, 2019.

Investigating Sports Commentator Bias within a Large Corpus of American Football Broadcasts. Jack Merullo, Luke Yeh, **Abram Handler**, Alvin Grissom II, Brendan O'Connor and Mohit Iyyer. *EMNLP*, 2019.

Relational Summarization for Corpus Analysis. **Abram Handler** and Brendan O'Connor. *NAACL*, 2018.

Rookie: A unique approach for exploring news archives. **Abram Handler** and Brendan O'Connor. *Data Science + Journalism workshop at KDD*, 2017.

Identifying civilians killed by police with distantly supervised entity-event extraction. Katherine Keith, **Abram Handler**, Michael Pinkham, Cara Magliozzi, Joshua McDuffie, and Brendan O'Connor. *EMNLP*, 2017.

Bag of What? Simple Noun Phrase Extraction for Text Analysis. **Abram Handler**, Matthew J. Denny, Hanna Wallach, and Brendan O'Connor. *Text as Data, 2016* and *NLP + Computational Social Science workshop at EMNLP, 2016*.

Visualizing textual models with in-text and word-as-pixel highlighting. **Abram Handler**, Su Lin Blodgett and Brendan O'Connor. *Workshop on Human Interpretability in Machine Learning at ICML, 2016*

Identifying Pregnancy Status through STD/HIV Electronic Laboratory Reporting, Elliott Brannon, **Abram Handler** and Joseph Foxhood, *Online Journal of Public Health Informatics*. April 2014.

Skills & software projects

- 2006-present **Programming**
Longtime, self-taught programmer fluent in Python, NumPy, PyTorch, HTML/CSS, JavaScript, React, Redux, SQL/object relational mappers, Flask, git, Linux and systems administration.
- 2016 **Phrasemachine**
Developed widely-used Python package for finding phrases
<https://github.com/slanglab/phrasemachine>.
- 2014-2015 **Live election maps**
Leader of technical team which produced the first three live election maps in Louisiana
<http://elections.thelensnola.org>
- 2014 **Document Cloud (Doc Split)**
Open source contributor: added support for the Tesseract rotation detection plugin
<https://www.documentcloud.org>

Work Experience

- 2015-present **University of Massachusetts**, Research assistant and teaching assistant, Amherst, MA
- Conduct both individual and group research projects as member of SLANG lab.
 - Teaching assistant for graduate courses in graphical models and natural language processing.
 - Summer graduate coordinator for the "REUMass" program for undergraduate researchers (2017).
 - PhD mentor for MS students working on data science internship (2018, 2019).
- 2019 **BuzzFeed**, Data science intern, New York, NY
- Contributed model to internal API for analyzing user comments.
 - Developed a new method for detecting aliases, using BuzzFeed comment data.
- 2018 **Agolo**, Natural language processing research intern, New York, NY
- Implemented state-of-the-art sentence compression technique in PyTorch.
 - Developed a new method for summarizing entity relationships in news corpora.
- 2014-2015 **The Lens**, Software developer and data journalist, New Orleans, LA
- Founded and lead a news applications team.
 - Produced interactive web stories.
 - Analyzed heterogeneous textual records to programmatically identify corruption.

- 2013 **C4 Tech and Design**, Software developer, New Orleans, LA
 - Worked as full-stack web developer using PHP, Git, Drupal, Javascript, CSS and HTML.
- 2011-2013 **Louisiana Office of Public Health** (Acadiana CARES), Software developer, New Orleans, LA
 - Successfully refactored a mission-critical system for collecting and monitoring electronic lab reports.
- 2010 **Jefferson Parish Public Schools**, Digital Opportunity Trust Intern, Gretna, LA
 - Helped develop a new personnel system in PHP, SQL, CSS, HTML and JavaScript.
- 2007-2009 **The Bronx Defenders**, Investigator, Bronx, NY
 - Assisted attorneys at a *pro bono* legal clinic.
- 2006 **Benenson Strategy Group**, Intern, Manhattan, NY
 - Taught myself to program by automating routine tasks in Microsoft Excel.

Professional Service

- Reviewer: EMNLP (2017,2018,2019), NAACL (2019), WNUT (2019), New Frontiers in Summarization (2019), ICWSM (2018, 2019)

Graduate coursework

Graduate courses (University of Massachusetts): Machine Learning, Natural Language Processing, Deep Learning, Advanced Algorithms, Theory of Computation, Graphical Models, Reinforcement Learning, Programming Languages and Statistical Machine Learning.

Last updated: September 7, 2019